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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPEAL FROM THE EXAMINER TO THE BOARD
OF PATENT APPEALS AND INTERFERENCES

In re Application of: Sullivan
Serial No.: 08/784,224
Filing Date: January 16, 1997
Group Art Unit: 2765
Examiner: James Myhre
Title: KNOWLEDGE MANAGEMENT SYSTEM AND
METHOD

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Commissioner of Patents
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APPEAL BRIEF

Applicant has appealed to the Board of Patent Appeals and Interferences from the decisions of the Examiner mailed August 18 and November 25, 1998 finally rejecting Claims 1-28 in the above-identified patent application. Applicant filed a Notice of Appeal on December 11, 1998. Applicant respectfully submits herewith this Appeal Brief, in triplicate, with authorization to charge the statutory fee of \$300.00.

REAL PARTY IN INTEREST

The present application was assigned to Electronic Data Systems Corporation as indicated by an assignment from the inventors recorded on January 16, 1997 in the Assignment Records of the United States Patent and Trademark Office at Reel 8398, Frames 305-307.

RELATED APPEALS AND INTERFERENCES

There are no known appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in this pending appeal.

STATUS OF CLAIMS

Claims 1-28 stand rejected pursuant to a Final Office Action mailed August 18, 1998. Claims 1-28 are all presented for appeal.

STATUS OF AMENDMENTS

Applicant filed an Amendment After Final on October 19, 1998, in response to the Final Office Action mailed August 18, 1998. The Examiner issued an Advisory Action dated November 25, 1998, stating that the proposed amendments after final action would be entered.

SUMMARY OF INVENTION

The present invention involves a computer-based knowledge management system and method for accessing and delivering knowledge items stored in information sources, according to the need of a knowledge worker and the status and availability of the knowledge items. For example, many people use information or knowledge as part of their function within a business or other organization. These knowledge workers may spend significant time looking for the applicable information to achieve their business purpose. Once locating the appropriate information, the knowledge workers spend

additional time validating and updating the information to meet the current need.

FIGURE 1 illustrates a knowledge management system (10) that includes a number of clients (12), a server (14), and information services (16). Server (14) maintains in a knowledge matrix (18) a multi-dimensional mapping of the information requirements, sources, perspectives, currency, and other knowledge items that are of interest to knowledge workers operating clients (12). The knowledge items may include dynamic or static process items or data items.

FIGURE 2 illustrates the structure and content of a knowledge matrix (18). Knowledge matrix (18) may include a knowledge worker grid (100), a process grid (110), and a data grid (150) to associate knowledge workers to predefined needs, where each need identifies one or more process items or data items to satisfy the knowledge worker's request. The knowledge matrix (18) may also include a process cycle grid (130) and a data cycle grid (170) to store status information on the identified knowledge items, in the form of execution flags (F) or data identifiers (D,S), to determine whether the identified knowledge items are current, in existence, available, or otherwise in the proper form or status to satisfy the knowledge worker's request. In this manner, the knowledge matrix (18) defines a knowledge worker's need by one or more interrelated and dependent process or data items.

The knowledge management system (10) further establishes knowledge worker profiles using both personal profiles (30) and default profiles (32). A watch module (34) monitors a knowledge worker's activities over time to generate access statistics (222) which may be used to refine and customize the personal profile (30). A pending module (36) and a pending queue (40) store information on unavailable knowledge items. For example, the pending module (36) and the pending queue (40) gather times; content of the request; identifiers for uncompleted, non-existent, or unavailable knowledge items; and status information or other information for the knowledge items to construct a record of unfulfilled requests for

information. Furthermore, the pending module (36) and pending queue (40) may continue to monitor the status information stored in the knowledge matrix (18) to determine when the uncompleted requests for information are fulfilled.

According to one embodiment of the present invention, the computer-based knowledge management system (10) includes a client (12) that generates a first request. The client (12) is associated with a knowledge worker. A server (14) coupled to the client (12) receives the first request. The server (14) includes a knowledge matrix (18) that stores status information on a number of knowledge items associated with the first request. The server (14) generates a second request for the knowledge items if the status information stored in the knowledge matrix (18) indicates the availability of the knowledge items. An information source (16), in response to the second request, communicates information to the server (14) to satisfy the first request. (See e.g., page 12, line 30 through page 13, line 16).

STATEMENT OF ISSUES

1. Are Claims 1-7, 11-14, and 19-22 unpatentable under 35 U.S.C. § 103 in view of U.S. Patent No. 5,675,745 issued to Oku, et al. ("Oku")?

2. Are Claims 8, 18, and 23 unpatentable under 35 U.S.C. § 103 in view of *Oku* in combination with U.S. Patent No. 5,548,506 issued to Srinivasan ("*Srinivasan*")?

3. Are Claims 9, 15, 17, 24, and 26-28 unpatentable under 35 U.S.C. § 103 in view of *Oku* in combination with *Srinivasan* and further in combination with U.S. Patent No. 5,499,340 issued to Barritz ("*Barritz*")?

4. Are Claims 10, 16, and 25 unpatentable under 35 U.S.C. § 103 in view of *Oku* in combination with *Srinivasan* and *Barritz*, and further in combination with U.S. Patent No. 5,410,344 issued to Graves, et al. ("*Graves*")?

GROUPING OF CLAIMS

Applicant requests that Claims 1-28 not be grouped to stand or fall together according to 37 C.F.R. § 1.192(c)(7).

ARGUMENT

Issues 1-4 concern obviousness art rejections maintained by the Examiner. Section A reviews the obviousness standard to be used by the Examiner in maintaining these rejections. Applicants address issue 1 in Sections B and C, issue 2 in Section D, issue 3 in Sections E and F, and issue 4 in Section G.

A. The Obviousness Standard

The Examiner maintains that all pending claims are obvious in view of the cited references. The determination of whether an invention is obvious in view of prior art considers "if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains." 35 U.S.C. § 103 (Emphasis added). The fact that a prior art device could be modified so as to produce the claimed invention is not a basis for an obviousness rejection unless the prior art suggested the desirability of such a modification. *In re Gordon*, 733 F.2d 900, 221 U.S.P.Q. 1125 (Fed. Cir. 1984). Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion, or incentive supporting the combination. *Carella*

v. Starlight Archery, 804 F.2d 135, 231 U.S.P.Q. 644 (Fed. Cir. 1986).

In approaching this determination, a number of inquiries are made as primary considerations: (1) the scope and content of the prior art are determined; (2) the differences between the prior art and the claims at issue are ascertained; and (3) the level of ordinary skill in the pertinent art is resolved. *Graham v. John Deere Company*, 383 U.S. 1, 16, 148 U.S.P.Q. 459, 467 (1966). It is important that the proper perspective be used in considering the invention in view of the prior art while conducting the obviousness/nonobviousness analysis. It is improper for an Examiner to use hindsight having read the Applicant's disclosure to arrive at an obviousness rejection. *In re Fine*, 837 F.2d 1071, 1075, 5 U.S.P.Q. 2d 1596, 1600 (Fed. Cir. 1988). It is improper to use the claimed invention as an instruction manual or template to piece together the teachings of the prior art so that the claimed invention is rendered obvious. *In re Fritch*, 972 F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992).

B. The Examiner Cites No Prior Art That Alone or In Combination Suggests a Knowledge Matrix that Stores Status Information on a Plurality of Knowledge Items.

The Examiner acknowledges in the Final Office Action that *Oku* does not disclose a "knowledge matrix." Final Office Action, page 3. Indeed, the system of *Oku* is limited to performing pedestrian query and retrieve functions upon databases constructed by a "data modeling technique" of the *Oku* system. (Column 21, lines 8-26). Faced with these limited teachings of *Oku*, the Examiner impermissibly uses hindsight reconstruction to concoct an "it would have been obvious to one skilled in the art" rejection.

In particular, the Examiner takes official notice that it is well known within the database art to use one or more indexes in database management systems to query and search databases. The Examiner then concludes that "it would have been obvious to one having ordinary skill in the art at the time the invention was made to search the knowledge matrix (database index) in order to ascertain if the information sought was located in the database." The Examiner provides no details to support this conclusion.

Applicant respectfully traverses the Examiner's position and respectfully requests yet again that the Examiner produce specific references that disclose the claim limitations that the Examiner concludes are obvious. "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the Examiner must present a convincing line of reasoning as to why the art is one that would have found the claim to be obvious in light of the teachings of the references." MPEP § 706.02(j) (citing *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985)). The Examiner shows neither. Instead, the Examiner equates a "knowledge matrix" as embodied in Applicant's independent claims with a mere "database index". In doing so, the Examiner oversimplifies the inventive concepts of Applicant's invention as embodied in Claim 1, for example, and fails to consider each and every limitation found in Claim 1. "All words in a claim must be considered in judging the patentability of that claim against the prior art." MPEP § 2143.03 (citing *In re Wilson*, 424 Fed.2d 1382, 165 USPQ 494, 496 (C.C.P.A. 1970)).

Claim 1 recites, in part, "a client operable to generate a first request . . . a server coupled to the client and operable to receive the first request, the server comprising a **knowledge matrix operable to store status information** on a plurality of knowledge items associated with the first

request, the server operable to generate a second request for the knowledge items if the status information stored in the knowledge matrix indicates the availability of the knowledge item." At least, *Oku* fails to teach, suggest, or disclose a "knowledge matrix operable to store status information on a plurality of knowledge items," or generating a "request for the knowledge items if the status information stored in the knowledge matrix indicates the availability of the knowledge items." The Examiner fails to consider these limitations in judging the patentability of Claim 1. Moreover, Applicant respectfully submits that a "database index" as taught by *Oku* does not "store status information" that "indicates the availability of [a] knowledge item."

Oku is limited to a specific method for constructing an organization activity database. (Column 1, lines 10-29). Not only does *Oku* fail to teach, suggest, or disclose the inventive concepts of Applicant's invention, but *Oku* teaches away from using databases in its organization activity management system other than those "constructed by the data modeling technique of the [*Oku*] invention." (Column 20, line 61 through column 21, line 4). The data modeling technique of *Oku* collects drawings, business transaction slips, in-house procedures, shop rules, manuals, or other documents in an electronic or printed format and converts the basic concepts of "person, organization, article, document, meeting and event" found in these documents from a "real model" to a "logical model" by performing a domain analysis and a sentence-pattern analysis upon the documents. (FIGURE 27; and column 17, line 66 through column 18, line 16). The domain analysis "stratifies and defines" the basic concepts, (column 18, lines 53-56), while the sentence-pattern analysis "stratifies" the verbs of each sentence of the subject document according to certain grammatical rules to define the context of the document, (column 18, lines 17-29).

Next, the data modeling technique of *Oku* generates a logical model by "integrating the concepts summarized by" the domain-analysis and the sentence-pattern analysis. (Column 19, lines 61-65). Finally, the data modeling technique of *Oku* performs two "essential processes for constructing a database" suitable for use in the *Oku* system. In particular, the logical model is converted into a "mounted model" having a descriptive form suited to a specified database management system, and the mounted model is "optimized". (Column 20, lines 8-17).

A section 103 rejection based upon a modification of a reference that destroys the intent, purpose, or function of the invention disclosed in the reference is not proper, and the prima facie case of obviousness cannot be properly made. In short, there would be no technological motivation for engaging in the modification or change. To the contrary, there would be a disincentive. *In re Gordon*, 733 F.2d 900, 221 USPQ 25 (Fed. Cir. 1984). A significant purpose of the database management system of *Oku* is to use database structures constructed by the data modeling technique of *Oku*. (Column 20, line 61 through column 21, line 4). Modifying *Oku* to include a database structure other than the specific structure constructed by the data modeling technique of *Oku* would destroy a significant purpose of the invention disclosed in *Oku*. Therefore, not only does *Oku* describe a method for modeling databases for use in its organization activity management system, but it teaches away from using other types of data structures in the system. Since *Oku* teaches away from using other data structures in its system, it is an inappropriate reference -- used either alone or in combination with other references -- to reject Applicant's claims.

C. The Examiner Cites No Prior Art That Alone or In Combination Suggests Needs Associated With a Knowledge Worker, a Process Item or Data Item Associated With a Selected Need, Status Information On a Step of the Process Item, or Status Information On an Instance of the Data Item.

Claims 4, 13, and 20 cite further embodiments of Applicant's invention directed to knowledge workers, needs associated with a knowledge worker, process items associated with a selected need, and data items associated with a selected need. Claims 5, 14, and 21 cite still further embodiments of Applicant's invention directed to status information on a step of a process item and status information on an instance of a data item.

In rejecting these claims, the Examiner states that it is obvious that a database would have an index, and that queries for multiple items in a database may be submitted concurrently. Final Office Action, pages 3-4. Based upon this reasoning, the Examiner summarily concludes that "it would have been obvious . . . to identify one or more needs associated with the knowledge worker and then to identify the process and data items associated with the need." The Examiner further concludes that it would have been obvious to set up a matrix to store status information on each knowledge item. Applicant respectfully traverses the Examiner's position and notes that the Examiner provides no basis grounded in *Oku* for these conclusions.

Oku fails to teach any association or arrangement of knowledge workers, needs, process items, and data items. Furthermore, there is simply no teaching of "status information" in *Oku*. Faced with these limited teachings of *Oku*, the Examiner constructs multiple tiered levels of "it would have been obvious to one skilled in the art" rejections to reconstruct Applicant's invention with the benefit of hindsight. This is clearly an impermissible endeavor. See *In re Fritch*, 23 USPQ 2d 1780 (Fed. Cir. 1992).

D. The Examiner Cites No Prior Art That Alone or In Combination Suggests a Personal Profile for a Knowledge Worker and a Selected Knowledge Worker View, and a Default Profile Associated With a Corresponding Knowledge Worker View.

Claims 8, 18, and 23 recite further embodiments of Applicant's invention directed to personal profiles, default profiles, and knowledge worker views. In rejecting these claims, the Examiner incorrectly interprets the scope of these claims to include a limitation regarding authorization levels. The Examiner proceeds to cite a reference, *Srinivasan*, that teaches the use of passwords for authorization of input mail or faxes. Therefore, the Examiner relies upon a misguided premise to support the conclusion that the *Oku-Srinivasan* combination renders these claims obvious.

Significantly, however, nowhere does the *Oku-Srinivasan* combination teach, suggest, or disclose the use of a "personal profile ... that specifies the knowledge worker and a selected knowledge worker view" or a "default profile associated with a corresponding knowledge worker view," as recited in Applicant's claims. Furthermore, since profiles are not necessary to authorize incoming mail or faxes as discussed in *Srinivasan*, *Srinivasan* provides no better basis, suggestion, or motivation than *Oku* to include personal or default profiles. Furthermore, nowhere does the *Oku-Srinivasan* combination teach the concept of "knowledge worker views." The Examiner states that *Oku's* discussion of "client environments" would motivate one of ordinary skill in the art to use the inventive concepts embodied in Claim 8. The Examiner, however, fails to identify what aspects of the "client environments" or the relevance of these aspects that would provide such a motivation.

E. The Examiner Cites No Prior Art That Alone or In Combination Suggests Generating Access Statistics.

Claims 9, 15, and 24 are directed to a further aspect of Applicant's invention that generates access statistics. To reject these claims, the Examiner relies on three disparate references -- *Oku*, *Srinivasan*, and *Barritz* -- that offer no motivation to combine with any other references.

Barritz is limited to monitoring the instantiation of previously identified **executable** files. (Column 4, line 64 through column 5, line 18). In particular, *Barritz* discloses separating **executable** files, such as software programs, from **non-executable** files, such as databases, and monitoring only the **executable** files. (Column 4, line 64 through column 5, line 18). By limiting the scope of monitoring to the instantiation of executable files only, *Barritz* is inoperable "to generate access statistics" as recited in Applicant's claims.

F. The Examiner Cites No Prior Art That Alone or In Combination Suggests a Pending Module that Identifies an Unavailable Knowledge Item and a Pending Queue that Stores Information on the Unavailable Knowledge Item.

Claims 17 and 26-28 recite further embodiments of Applicant's invention directed to pending modules and pending queues. Contrary to the Examiner's suggestion, *Oku* fails to disclose a system with a "pending matters" section. Rather, *Oku* teaches a system with a "**depending** matters" section. In particular, Applicant refers to FIGURES 60 and 61 of *Oku* to clarify the inaccurate references to "pending matters" at column 23, line 31-36 in *Oku*. FIGURES 60 and 61 of *Oku* clearly use the terms "depending" and "depending matters." Furthermore, the term "pending matters" referenced in *Oku* at Column 23, line 31-36 is inconsistent with other concepts of *Oku* when read in the appropriate context. Therefore, *Oku*

fails to teach, suggest, or disclose a "pending module" or a "pending queue," as recited in Applicant's claims. Furthermore, *Srinivasan* is limited to reminding task leaders about start and finish dates associated with pending tasks. (Column 3, lines 6-8). Certainly, a "notification" or "reminder" function regarding tasks yet to be completed fails to teach, suggest, or disclose a "pending module" or a "pending queue," as recited in Applicant's claims. Moreover, as stated above, *Barritz* teaches away from monitoring non-executable files such as databases.

G. The Examiner Cites No Prior Art That Alone or In Combination Suggests Modifying a Personal Profile in Response to Access Statistics.

Claims 10, 16, and 25 are directed to a further aspect of Applicant's invention that modifies a personal profile of a knowledge worker in response to access statistics. To reject these claims, the Examiner relies on four disparate references -- *Oku*, *Srinivasan*, *Barritz*, and *Graves* -- that offer no motivation to combine with any other references.

Graves relates to the field of television media, and more particularly to selecting television programs based on program content and viewer preference. (Column 1, lines 8-10). There is no explicit or implicit reference to "knowledge management" within *Graves* which would suggest to one of ordinary skill in the claimed art of knowledge management systems to combine *Graves* with any other references. Furthermore, *Graves* is limited to modifying a preference file that is generated by soliciting information from a user by a variety of techniques, "including a mailed questionnaire, telephone interview, or by television menu controlled by keys/remote control input." (Column 5, lines 62-66). Therefore, *Graves* requires interaction "with the viewer to solicit his/her preferences regarding programs and program attributes" and modifies the preference file in response to the solicited responses.

(Column 6, lines 55-56 and column 7, lines 37-43). Indeed, any pertinent teachings of the *Oku-Srinivasan-Barritz-Graves* combination requires solicitation of the viewer particularly for the purposes of gaining viewer preferences.

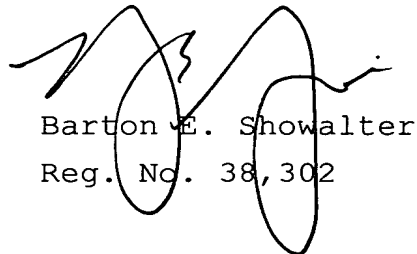
CONCLUSION

Applicant has clearly demonstrated that the present invention as claimed is clearly distinguishable over the art cited of record, either alone or in combination. Therefore, Applicant respectfully requests the Board of Patent Appeals and Interferences to reverse the final rejection of the Examiner and instruct the Examiner to issue a notice of allowance of all claims.

The Commissioner is authorized to charge the statutory fee of \$300.00 to Deposit Account No. 05-0765 of Electronic Data Systems Corporation. Although no other fee is believed due, the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 05-0765 of Electronic Data Systems Corporation.

Respectfully submitted,

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APPENDIX A

1. A computer-based knowledge management system, comprising:

a client operable to generate a first request, the client associated with a knowledge worker;

a server coupled to the client and operable to receive the first request, the server comprising a knowledge matrix operable to store status information on a plurality of knowledge items associated with the first request, the server operable to generate a second request for the knowledge items if the status information stored in the knowledge matrix indicates the availability of the knowledge items; and

an information source operable, in response to the second request, to communicate information to the server to satisfy the first request.

2. The system of Claim 1, wherein the knowledge items comprise:

a step of a process item; and
an instance of a data item.

3. The system of Claim 1, wherein the first request identifies a need of the knowledge worker, the knowledge matrix operable to identify knowledge items associated with the need of the knowledge worker.

4. The system of Claim 1, wherein the knowledge matrix comprises:

a knowledge worker grid operable to identify a plurality of needs associated with the knowledge worker, the knowledge worker grid operable to relate the first request to a selected need;

a process grid operable to identify a process item associated with the selected need; and

a data grid operable to identify a data item associated with the selected need.

5. The system of Claim 1, wherein the knowledge matrix comprises:

a knowledge worker grid operable to identify a plurality of needs associated with the knowledge worker, the knowledge worker grid operable to relate the first request to a selected need;

a process grid operable to identify a process item associated with the selected need;

a data grid operable to identify a data item associated with the selected need;

a process cycle grid operable to store status information on a step of the identified process item; and

a data cycle grid operable to store status information on an instance of the identified data item.

6. The system of Claim 1, wherein the status information comprises:

an execution flag associated with a step of a process item; and

a data identifier associated with an instance of a data item.

7. The system of Claim 1, wherein the information source resides external to the server.

8. The system of Claim 1, wherein the server further comprises a database operable to store:

a plurality of personal profiles, each personal profile identified by a knowledge worker identifier that specifies the knowledge worker and a selected knowledge worker view; and

a plurality of default profiles, each default profile associated with a corresponding knowledge worker view.

9. The system of Claim 1, further comprising a watch module operable to generate access statistics in response to the interaction between the client and the server.

10. The system of Claim 1, further comprising a watch module operable to generate access statistics in response to a knowledge management session between the client and the server, the watch module further operable to modify a personal profile of the knowledge worker in response to the access statistics.

11. An apparatus for serving a knowledge worker, comprising:

a knowledge matrix operable to store status information on a plurality of knowledge items associated with a first request; and

a control module coupled to the knowledge matrix and operable to receive the first request from a client associated with the knowledge worker, the control module further operable to generate a second request for the knowledge items if the status information stored in the knowledge matrix indicates the availability of the knowledge items, the control module further operable to receive information in response to the second request.

12. The apparatus of Claim 11, wherein the first request identifies a need of the knowledge worker, the knowledge matrix operable to identify process items and data items associated with the need of the knowledge worker.

13. The apparatus of Claim 11, wherein the knowledge matrix comprises:

- a knowledge worker grid operable to identify a plurality of needs associated with the knowledge worker, the knowledge worker grid operable to relate the first request to a selected need;

- a process grid operable to identify a process item associated with the selected need; and

- a data grid operable to identify a data item associated with the selected need.

14. The apparatus of Claim 11, wherein the knowledge matrix comprises:

- a knowledge worker grid operable to identify a plurality of needs associated with the knowledge worker, the knowledge worker grid operable to relate the first request to a selected need;

- a process grid operable to identify a process item associated with the selected need;

- a data grid operable to identify a data item associated with the selected need;

- a process cycle grid operable to store status information on a step of the identified process item; and

- a data cycle grid operable to store status information on an instance of the identified data item.

15. The apparatus of Claim 11, further comprising a watch module coupled to the control module, the watch module operable to generate access statistics in response to the interaction between the knowledge worker and the apparatus.

16. The apparatus of Claim 11, further comprising a watch module coupled to the control module, the watch module operable to generate access statistics in response to a knowledge management session between the knowledge worker and the apparatus, the watch module further operable to modify a personal profile of the knowledge worker in response to the access statistics.

17. The apparatus of Claim 11, further comprising:
a pending module coupled to the control module, the pending module operable to identify an unavailable knowledge item; and
a pending queue coupled to the pending module and operable to store information on the unavailable knowledge item.

18. The apparatus of Claim 11, wherein the server further comprises a database operable to store:
a plurality of personal profiles, each personal profile identified by a knowledge worker identifier that specifies the knowledge worker and a selected knowledge worker view; and
a plurality of default profiles, each default profile associated with a corresponding knowledge worker view.

19. A method for serving a knowledge worker, comprising:
receiving a first request from a client associated with the knowledge worker;
retrieving, from a knowledge matrix, status information on a knowledge item associated with the first request;
generating a second request for the knowledge item if the status information received from the knowledge matrix indicates the availability of the knowledge item; and
receiving information related to the knowledge item in response to the second request.

20. The method of Claim 19, wherein the step of retrieving comprises:

relating the first request to a selected one of a plurality of needs associated with the knowledge worker;

retrieving a process item associated with the selected need; and

retrieving a data item associated with the selected need.

21. The method of Claim 19, wherein the step of retrieving comprises:

relating the first request to a selected one of a plurality of needs associated with the knowledge worker;

retrieving a process item associated with the selected need;

retrieving a data item associated with the selected need;

retrieving status information on a step of the identified process item; and

retrieving status information on an instance of the identified data item.

22. The method of Claim 19, wherein the status information comprises:

an execution flag associated with a step of a process item; and

a data identifier associated with an instance of a data item.

23. The method of Claim 19, further comprising the step of receiving a personal profile associated with the knowledge worker, the personal profile identified by a knowledge worker identifier that specifies the knowledge worker and a selected knowledge worker view.

24. The method of Claim 19, further comprising the step of generating access statistics associated with the knowledge worker.

25. The method of Claim 19, further comprising:
generating access statistics associated with the knowledge worker in response to a knowledge management session conducted by the client; and
modifying a personal profile of the knowledge worker in response to the access statistics.

26. The system of Claim 1, further comprising:
a pending module operable to identify a knowledge item as unavailable and further operable to service the first request upon determining that the knowledge item is available; and
a pending queue coupled to the pending module and operable to store information on the knowledge item identified as unavailable.

27. The apparatus of Claim 11, further comprising:
a pending module coupled to the control module, the pending module operable to identify a knowledge item as unavailable and further operable to service the first request upon determining that the knowledge item is available; and
a pending queue coupled to the pending module and operable to store information on the knowledge item identified as unavailable.

28. The method of Claim 19, further comprising:
identifying a knowledge item as unavailable;
storing information on the knowledge item;
determining that the knowledge item is now available; and
servicing the first request.